

## Denver mayor visits School of Mines Speaks on sustainability, plans for the future

**Neelha Mudigonda**  
Staff Writer

Mines has become a target on the political landscape as environmental issues come to the forefront of the nation's concerns. The 2008 Young Environmental Symposium speaker for the Colorado School of Mines, Denver Mayor John W. Hickenlooper, presented "Being Good Ancestors: Our Sustainability to Society" on Monday, the 7th of April. In his "Letter from the Mayor" in July 2006, Hickenlooper stated, "As an exploration geologist turned small businessman, I have always maintained what I considered a healthy perspective on the need to balance environmental and economic considerations in my decisions. I learned early on in my career in business that the best solutions often combine economic, social, and environmental considerations."

During his presentation, Hickenlooper reinforced that a strong economy, an economy that is beneficial to the society and social justice, is needed to create ambitious goals for healthy ecological practices and to create an equal opportunity for everyone to do so. Hickenlooper explained in his letter that "sustainability is a central goal of Denver's Comprehensive Plan of 2000 and a central value of our administration and our community." Furthermore, in order to advance and support the environmental impact analysis, Hickenlooper launched the Greenprint Denver Initiative in 2005.

Hickenlooper presented many statistics and made many sugges-

tions that would lead to reducing the carbon-footprint and making Denver a green city. For instance, energy consumption by the passengers of Denver International Airport was reduced by 8 percent; last year, DIA received approximately 48 million passengers, making the amount of energy conserved extremely significant. Hickenlooper points out that the air conditioner increases the gas consumption in automobiles by 8 to 20 percent; instead

of using the air conditioners as much, he suggests parking in the shade to keep the automobiles cool.

Also, in order to reduce fuel consumption, 4 percent of state taxes are funneled towards FasTracks (the light-rail system) to encourage public transportation and decrease reliance on personal automobiles.

SEE  
"MAYOR"  
PAGE 3



**A meeting of generational leadership.** Denver Mayor John Hickenlooper and Colorado School of Mines Student Body President Casey Morse share a photo opportunity.

CHRIS PETERS / OREDIGGER

## Materials lecture focuses on developing truly green plastics

**Akira Rattenbury**  
Staff Writer

The decline of easily accessible, cheap fossil fuel sources and the rising specter of climate change have encouraged researchers to offset the dependence on the former.

"We are moving into an era where easy to obtain oil is difficult," said Professor John R. Dorgan, of the Chemical Engineering Department. Dorgan presented a talk entitled "Ecobionanocomposites: A New Class of Green Materials" at Thursday's MME lecture. "We are increasingly using less and less efficient sources for our fuel," he said, citing tar sands and liquefied coal as examples.

Not just a problem at the gas pump, the issue of rising oil prices affects other significant sectors of the economy, such as the largely petrol-based plastics industry. Its value to the US economy is over \$300 billion, and accounts for approximately "7% of petroleum use worldwide."

SEE "PLASTICS" PAGE 3



AKIRA RATTENBURY / OREDIGGER

**Think Big.** Chemical Engineering Professor John Dorgan lectures students on the use of newly discovered "ecobionanocomposites."

## Senior Design Trade Fair features innovative engineering design

**Patrick Beseda**  
Staff Writer

The spirit of engineering and innovation was in full swing last Tuesday throughout Steinhauer Field House at the Colorado School of Mines.

In the 2008 Senior Design Trade Fair, judges passed from project to project, hearing presentations from the 35 teams represented.

The teams of well-dressed seniors waited anxiously to show off the project they had worked on all year. Working in multidisciplinary teams with majors spanning all types of engineering, the seniors have developed solutions to a huge variety of engineering challenges.

Design teams were judged on communication, engineering solutions, addressing realistic problem constraints and demonstrating ethical and environmentally responsible designs. The teams that received the highest scores

were the Ladder Canyon Project, Team MEERCAT and Team iCAST.

The Ladder Canyon Project offered their client an exclusive, off-the-grid housing solution. Generating all of its own power via solar panels, collecting water using rainwater and processing waste with compost systems, the Ladder Canyon Project was considered by many to be very environmentally friendly.

Team MEERCAT created a lunar excavation system, using a bucket ladder method to enable mining on the moon. "Mining on the moon creates many opportunities," said the team. Making exploration

and colonization of the lunar surface possible, the MEERCAT project will be competing in this year's NASA Centennial Challenge.

The iCAST project was aimed at helping farmers save water and energy. The team of seniors developed a test system to evaluate energy use, irrigation systems and the use of Demand Side Management on crop yield, helping farmers optimize their energy usage and reduce their costs and be more environmentally friendly.

SEE "TRADE FAIR" PAGE 3

Design teams were judged on communication, engineering solutions, addressing realistic problem constraints and demonstrating ethical and environmentally responsible designs.

**Zach Aman**  
Editor-in-Chief

Many students at the Colorado School of Mines have taken some class in statistical mechanics, but, according to Dr. Robin Westacott, it takes the application of the experimental process to truly understand it.

Westacott, a chemical engineer at Heriot-Watt University in Edinburgh, Scotland, has been working with molecular dynamics simulations to better understand a multitude of physical processes.

Prior to joining the faculty at Heriot-Watt, Westacott was a post-doctoral student at both the University of Texas at Austin and the University of London. In England, he was a postdoctoral student of Dr. Carolyn Koh, now a professor in CSM's chemical engineering department and Co-Director of the Center for Hydrate Research (CHR) there.

This spring, his team from Heriot-Watt won four national awards, including the Royal Academy of Engineer-

ing's Engineering Excellence Award and the Best Scottish Knowledge Transfer Partnership (KTP), for their work on one such process – the cleaning and recycling of high-end titanium and nickel alloys. According to Westacott, such alloys are priced at up to \$20,000 per kilogram. "These are the titanium alloys that go into turbine blades in jet engines and things like that," he said.

SEE "HYDRATES" PAGE 3



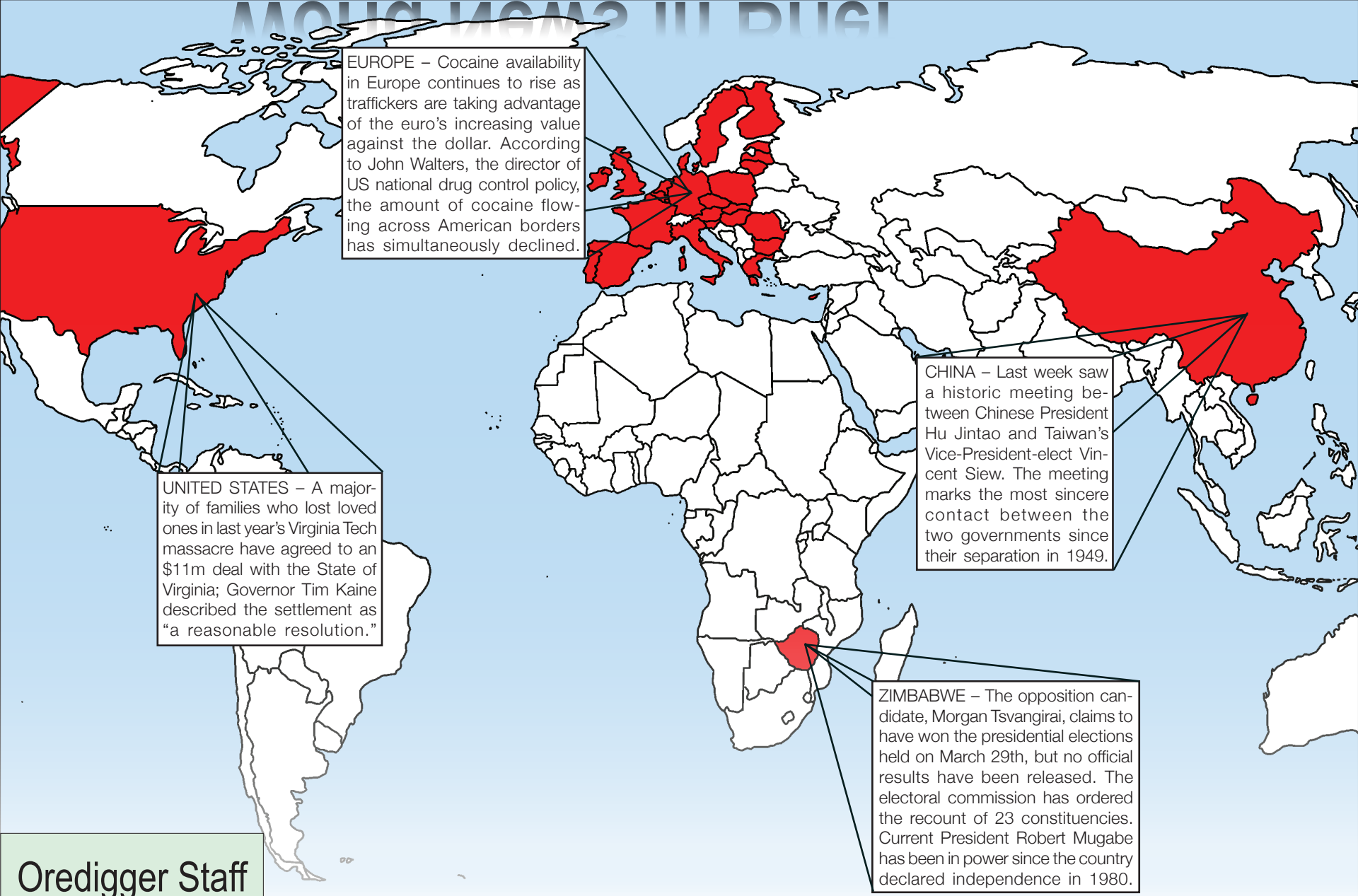
COURTESY CAROLYN KOH

**A knowledgeable group.** Dr. Robin Westacott, far left, with his postdoctoral mentor, Dr. Carolyn Koh, far right, and two graduate students, center. Koh and Westacott's independent research groups now work together on "cold flow" models for subsea hydrates.



# World News in Brief

Zach Aman, Editor-in-Chief



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## Solar energy A promising outlook

Jason Fish  
Content Manager

They can be seen on rooftops, above road signs, in classrooms, labs, auto races, and building competitions, pumping out electricity. All the while, they make use of an abundant, clean source of energy—sunlight.

At CSM, Physics research professor Joe Beach has made these solar-powered devices his hobby and the subject of his presentation at Tuesday's Physics Department Colloquium.

Also known as photovoltaic (PV) cells, this technology is in its fifth decade, and, according to Beach, an exciting field to dabble in.

"It's a rarity to see a technology go from the laboratory to people's roofs," said Beach.

The talk centered on Beach's own PV system set up on his suburban rooftop. He started with some background on the technology and how his system interacts with the public power grid.

Solar cells were first developed by Bell Labs in 1954. The initial working models cost \$14,100/watt in 2008 dollars and ran at 6 % efficiency. Powering a typical house would have cost nearly \$2M just to set up at that time.

By 1978, research had lowered the cost to \$4/watt, making solar systems more attractive to consumers.

"It was very encouraging to see

this," said Beach.

Today, a system like the one on Beach's roof costs a few thousand dollars and provides about 2 kW of power, enough to provide for many of the house's demands.

A modern silicon PV cell is composed of thin oxide layers backed with aluminum and coated in front with a cocktail of silver, titanium, palladium, and silicon dioxide.

Sealed under a tempered glass face, sandwiched between layers of EVA, an organic laminator, and fortified in back with a Teflon plate, the working cell collects energy from incoming photons as they bounce around inside the highly reflective surface.

"It's all about more photons in the cell," said Beach.

Today, PV cells output fractions of volts and a few amperes of current, running at about 25 % efficiency during the best of times.

However, more potential and less current is needed to power appliances and lighting systems. Thus, cells are connected in series, much the same way as the AAA batteries in a calculator. This configuration allows the cells to work together, producing a higher voltage.

The journey from laboratories to residences and businesses has fueled a growing economy around solar cells.

"There's a whole industry devoted to solar cell mass production

now," said Beach. He showed pictures and animations of the robots that turn out hundreds of cells a day.

If cells are linked together, they produce a string. Linking strings together gives a module. Multiple modules make an array,



JASON FISH / OREDIGGER

**An electric passion.** Professor Joe Beach discusses his hobby: solar power.

the rectangular panels donned by sloping shingled houses.

Beach described the power electronics that take the direct current and voltage from the arrays and transform it into the alternating current needed to power his refrigerator, toaster, dishwasher, lights, and television. He has also installed a data logging device to track and analyze the performance of his system.

"I'm satisfying my inner geek," said Beach.

Comparing the solar power

used each month against the public utility power taken from the grid, Beach has recorded negative usage, meaning he exported energy back to the grid while sufficiently running his house.

The presentation finished with some forecasts on this technology. The efficiencies will increase, production will become easier, and policies will emerge to integrate photovoltaic systems with societies and industry even more.

"I think solar cells will become as common as indoor plumbing," said Beach.

The talk produced good reactions.

"He has a unique perspective on renewable energy," said John Scales, colloquium host, and a professor in the Physics Department.

Another professor in attendance brought up the idea of implementing more solar technology at Mines, and mentioned the old and broken PV system atop the Weaver Towers residence hall complex. This discussion prompted more reaction from the crowd.

"Given the intellectual profile of this campus and the improved technology, it's sad this school can't represent itself better as steward of the Earth," said Shay Robinson, a student in the Physics department.

Beach and his wife recently started their own company, Starfire Energy, to assist people interested in setting up solar cell arrays on their own properties. Their website is [www.starfireenergy.com](http://www.starfireenergy.com). Beach's presentation slides will soon be available on the Physics Department's website at <http://www.mines.edu/academic/physics/colloquia/>.



# Plastics promise innovative solutions

CONTINUED FROM PAGE 1

Professor Dorgan, also the Site Director of the Colorado Center for Biofuels and Biorefining (C2B2), explained the challenges facing the world, and the plastics industry in particular, due to the cost of oil. He presented some of the research being conducted to offset the problem.

While more inefficient sources of fossil fuels will continue to be produced, the issue of depletion is overshadowed by the bigger problem: the consequences of fossil fuel usage. "The problem really is 'what's the impact on the global environment?'" said Dorgan.

Dorgan explained that the emergence of "industrial ecology," in the form of environmentally friendly practices, is beginning to reach industries from automobile to carpet manufacturing. Historically, industry has been slow to take up the banner of sustainability to "close the mass balance." However, advances in technology have led scientists to ask, "how can we convert CO<sub>2</sub> into useful products?"

The lecture cited several projects, which have successfully introduced "bioplastics" into their designs. These endeavors use CO<sub>2</sub> from the air to create plastic by biological and chemical means. Dorgan noted the company NatureWorks has created bioplastics from the photosynthetic fixing of CO<sub>2</sub> to form lactic acid. Subsequent chemosynthesis processes produce polylactides, which can be used for a variety of packaging purposes.

Dorgan presented other current bioplastic advances, such as genetically engineered switch grass with polyester fibers, which could be used as a feedstock for clothing and other products. Cars are also being built with corn-based interior fabrics. Renewable castor oil-based plastic powder coatings have been applied to ubiquitous products such as shopping carts for years.

While many technologies use

biological feedstocks, few are truly green in the sense of being renewable and sustainable. Returning to plastics used for packaging, Dorgan cited problems with current microcomposite plastics, expensive cellulose acetate plastics, and non-eco-sensitive clay-filled composites. "You want [plastics] to degrade to innocuous substances," said Dorgan. "You want things to be as eco-friendly as possible."

Dorgan presented cellulosic nanowhiskers as the key ingredient in bioplastics because they utilize a 100 % renewable, biological feedstock while also being environmentally safe and functional.

Dorgan explained that bioplastics typically "don't have the thermal resistance of other materials." Typical bioplastics may have a Heat Distortion Temperature (HDT) of about 60°C, which is unsuitable for hot beverages or other high temperature applications.

Adding composites help make them more stable at high temperatures. By incorporating up to 25 weight percent cellulosic nanowhiskers, HDT can exceed 100°C. Through simple chemistry to improve physical properties of the nanocomposite, bioplastics can be reinforced with as little as 10% cellulosic nanowhiskers and still exceed 100°C HDT. Thus, cellulosic nanowhisler-reinforced bioplastics are suitable for your daily coffee, or could potentially replace the polystyrene used in packaging today.

Future research will better mimic nature to create more sustainable products. Concluding the lecture, Dorgan explained that there will be "big impacts from molecular biology," and that scientists "need to address feedstock challenges," when looking at plastics.

Materials Science and Metallurgy senior Paul Johnson expressed his interest following the lecture. "I'm interested in the other applications besides packaging. What else can we make with a renewable feedstock?"

aling the bicycle for a few minutes.

With a more humanitarian touch, another team of seniors designed a sustainable water system for use by a school in Uganda. Without a clean water source nearby, childhood educational opportunities are limited in the country. Contacts in Africa and previous trips to the site offered enough information to account for the collection, filtering and storage of clean water.

Many regard the trade fair as a spectacular display of the engineering spirit that makes CSM unique. One judge, who has frequented past trade fairs, said, "This was the best trade fair in years."

# Hydrate research crosses oceans for collaboration

CONTINUED FROM PAGE 1

"There's a U.K. scheme which fosters collaboration between universities and small businesses to encourage knowledge transfer between universities and private industry," said Westacott.

"[Our] project was to, in the first instance, streamline a process to clean nickel alloys. The problem is that the solvents used are becoming more and more regulated by the EPA and it's all done by permitting based on the amount of solvent you use. It's all about recovering and reusing the solvent; that was the original part of the project."

"The second part was to build, from scratch, a process to clean the titanium alloys, because you can't use the same method," said Westacott.

He explained that many titanium alloys are flammable at high temperatures, so standard cleaning processes are not applicable. "We developed a process that's water based to clean the titanium alloys."

Westacott added that, when working with smaller businesses, priorities have a tendency to shift very quickly. "You can set about solving one of the problems only to find that, halfway through the process, the company's business priorities have changed and you have to be able to adapt," he said.

Westacott believes that this exposure to business, however, gives his students unprecedented

access to the corporate realm, so that "[they] can see that everything isn't the same in the real world as it is in the protected environment of the university."

In his research, Westacott has also extended the application of molecular dynamics into the realm of subsea gas hydrates. He is currently working with the CHR at CSM on this extension.

His expertise in statistical mechanics and molecular dynamics allows for a very unique approach to systematic modeling.

"Molecular dynamics is essentially solving Newton's equations of motion to determine the movement of atoms and molecules," said Westacott. "If you know how two atoms interact with one another, you can calculate the force between them. If you can calculate this, you can tell how the movement of one atom influences another. For a system of thousands of atoms, you can start to simulate realistic substances. You can start to calculate things like interfacial tensions."

Westacott and the CHR are applying these simulations to investigate the application of cold

flow technology in subsea hydrate systems. "There are a number of patented cold-flow technologies which focus on transporting non-

agglomerating hydrate particles as a cold slurry," said Koh, "but they have not been tested and there isn't any way of testing them unless you spend a significant amount of money for field trials. So, you need to look on a fundamental level and also simulate the real process."

"What we want to do at the Center is to look at the fundamentals and use our CSMHyK hydrate kinetics model to be able to test, for the first time, the cold-flow technology that hasn't been tested yet," said Koh.

The concept of cold flow, according to Koh and Westacott, flies against decades of traditional thermodynamic methods of controlling hydrates. "It presents a major shift in the industrial method for hydrate control," Koh said. "The key to controlling hydrate flow assurance problems will be to stop the hydrate particles from sticking together. This key concept is currently being investigated by CHR researchers using micromechanical force measurements."



COURTESY ROBIN WESTACOTT

# Mayor seeks to inspire environmental action

CONTINUED FROM PAGE 1

In order to further lower energy consumption, last year Hickenlooper's administration helped plant 60,000 trees; their goal is to increase that number to 75,000 this year. This is a part of the plan to plant a million new trees over the next twenty years. When proposed to several communities, school districts, and organizations around the city, the idea received tremendous support. Also, planting the trees on the south side of the house or a building is the most efficient way to reduce the maximum carbon-footprint.

Hickenlooper's administration also helps homes become more "green" by making sure that all construction companies recycle their concrete, pass environmental requirements, and insulate houses properly while building them. One of the environmental requirements for construction companies is that they plant new and efficient sprinkler systems that decrease the flow of water and do sustainable landscaping in new construction to reduce water consumption.

Hickenlooper stated that 95

percent of all scientists believe that global warming is occurring and that human activity is the main cause of global warming. He stated, "As we begin to run out of easily accessible fuel, it's time to look for alternatives to reduce CO<sub>2</sub> emissions." By implementing the Greenprint Denver plan and by using alternative sources of energy, Denver can become a model city in terms of healthy ecological practices for other cities around the world.

The audience response to Hickenlooper's presentation was tre-

mendous. An ex-engineer who was a professor at Wesleyan University said, "Most people believe this information to be obvious but don't take it to heart; however, Hickenlooper's style of speech makes you care about what's going on around the town." Another graduate student of Mines said, "I wasn't aware of the statistics that Hickenlooper provided during his speech, like most people. Now, I realize how important of a role stats can play in your decision-making [about the amount of water and energy consumption]."

# Trade Fair ignites creativity

CONTINUED FROM PAGE 1

Other design projects ranged from local to international engineering challenges. Several teams focused on improvements at CSM, offering a football field renovation and a replacement design for the Power Labs. There were also a few electric vehicle designs, a wind farm solution for Native American leaders, a pool playing robot and a cell phone robotics system.

One team created a recumbent bicycle generator designed to charge a battery for use during power outages. Dubbed the "Lean Green Machine," the team demonstrated the design by powering a blender simply by ped-

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# HIKING ACROSS GOLDEN



Neelha Mudigonda, Staff Writer

Colorado is well-known for its scenic beauty, which provides us with several outdoor activities such as skiing, hiking, and mountain-biking. Living in Golden makes it possible for residents to conveniently access many of these hiking and biking trails that are local to the town. Here are some interesting trails in the area.

## matthews / winters park trails

**Giddy-up!** The Matthews/Winters Park Trail system offers terrain for horseback riding, hiking, and biking.

Located just south of I-70 at the Morrison exit and close to the Red Rocks Amphitheater, the Matthews/Winters Park Trails consist of three trails - the Dakota Ridge Trail, Red Rocks Trail, and Morrison Slide Trail. The park contains a total of approximately 8 miles of trails.

### dakota ridge trail

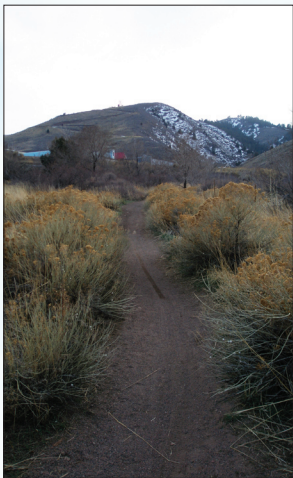
This trail is more familiar to mountain-bikers than hikers because of its rolling sections and technical loops; it also provides great views of the Eastern plains as well as the Red Rocks in the West.

### red rocks trail

Adjacent to the Red Rocks amphitheater, this trail starts out in the midst of meadows. The trail begins above a creek, where many native species of birds and insects are present. The plains and the meadows are good for beginning hikers. Also, the exposure to sunlight on this trail makes it welcoming even in the midst of winter. People often go horseback riding on this trail as well.

### morrison slide trail

With its steep rocks and narrow dirt paths, Morrison Slide trail easily attracts both climbers and bikers. The hogback in the Matthews/Winters Park Trails separates the mountains from the plains. To the east of the hogback is the Dinosaur Ridge Visitor Center, another attraction to visitors; furthermore, the hogback is the center of wildlife views in the area.



## apex park

Starting at the Heritage Square parking lot, Apex Park is approximately an 800 foot climb between the parking lot and Lookout Mountain road. One of the trails of the Apex Park runs parallel to the Chimney Gulch Trail, making the Chimney Gulch Trail and the Apex trail close neighbors.

The park consists of all levels of difficulties for hiking and biking. Many horseback riders as well as visitors who come to enjoy the scenery are often present on the easier hiking trails. The view of the snow-capped mountains in the background is a treat for many of its visitors.

One of the most popular routes that the mountain bikers take is the Apex Trail West to Apex gulch, which in turn leads to the Pick n' Sledge trail and the Grubstake loop. This route climbs uphill for approximately 2 miles before meeting the Enchanted Forest.

**At the Apex.** From Heritage square, hikers can embark on a 800 ft climb.

## enchanted forest trail

Mountain-bikers who seek more adventure and difficulty and choose to return to the foothills rather than continuing uphill choose the Enchanted Forest path. This path is "hard and known for its rapid drops; sometimes, the mudslides make it even harder," said a biker.

## south table mountain

South Table Mountain is located just southeast of Golden with an intriguing formation history. Its highlight is its cap, formed of basalt from ancient lava flows. An access point to hike South Table Mountain is in a neighborhood at the end of 19<sup>th</sup> street. The curvy path makes the hike easier because of the lack of rapid elevation gain, but

path gets rockier and steeper towards the summit. South Table Mountain is renowned for the view from the top. Hikers are well rewarded with an amazing view of Golden and its surroundings as well as the mountains. "The hike is well-worth the view of the city," said a hiker. "The view of the sunset from the very top is the best."



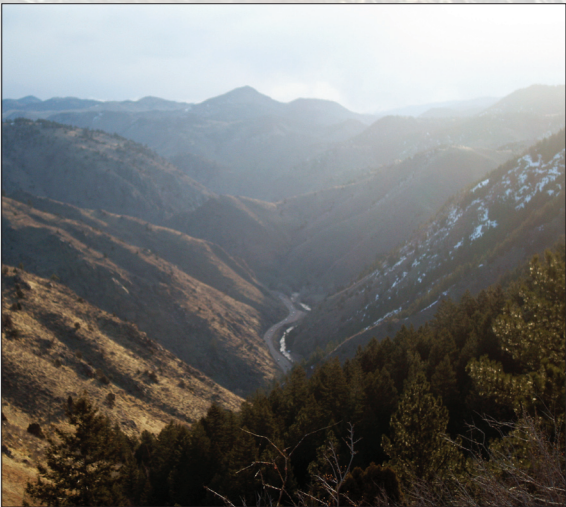
**Bird's eye view.** The view of Golden from the top of South Table Mountain is worth the climb.

## chimney gulch trail

A couple of access points to the trail are from Lookout Mountain west of US 6 and the roadside parking on US 6 eastbound from Highway 58. This trail is a major attraction to mountain-bikers and hikers who like to challenge themselves with intensely elevated heights. The Chimney Gulch Trail climbs 2000 feet in a relatively short distance of 2.5 miles from US 6 to the peak of the Lookout Mountain, taking its visitors through grass prairies and pine forests, and to streams and creeks. The gulch gets its name from the fast moving wildfires in the area, which explains the natural

vegetation that grows in the area. "I see deer up on Chimney Gulch every time I bike up there," a local mountain biker recalled. "Going late in the afternoon is the best time to go," said another biker. "That's when the trail is the pret-

tiest." The tourist attractions at the top of the trail include Buffalo Bill's Grave, the Boettcher Mansion, and the Lookout Mountain Nature center, which is located at the summit of the mountain where the trail ends.



**Up the chimney.** Beautiful views greet hikers at the top of the Chimney Gulch Trail.

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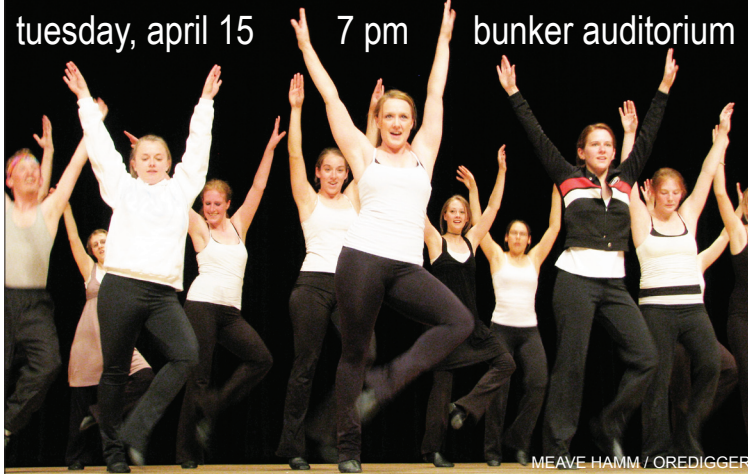
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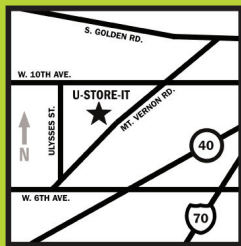
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# Geek of the Week

...Curtis Fleming, Sophomore: Math and Computer Science, Chemistry

**Alec Westerman**  
Staff Writer

**Oredigger: Would you consider yourself a geek?**  
Fleming: Yes

**When did you know you were a geek?**

Sophomore year in high school when I took two AP classes and got 5's.

**What is the Geekiest thing you've seen at Mines?**

Our pull up rules. (Outside of Curtis's door is a sign stating: "When you leave our room you must do the following number of pull ups or chin-ups: 12. Or memorize one more digit of pi: 3.14159265359...")

**How many decimals of pi do you know?**  
100!

**Which fictional world would you most prefer to live in?**  
StarCraft

**Are you part of any organizations or clubs?**

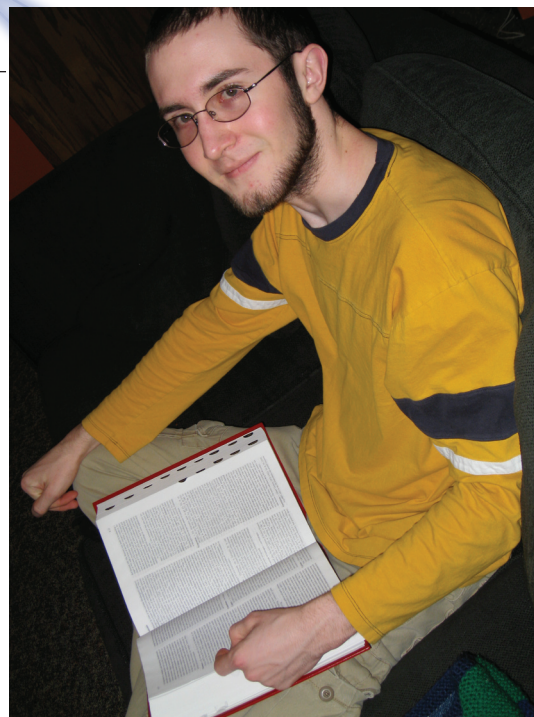
Not part of anything; I just program. I was in juggling club last year.

**What might you do after graduation?**

I plan on possibly researching in chemical modeling.

**What is something geeky you've done?**

I've written Grapher



ALEC WESTERMAN/OREDIGGER

**Book Smart:** Curtis has memorized pi to 100 decimal points

**What does it do?**

In general it acts pretty much like a standard graphing calculator [and] it helps with CAPA. Instead of switching between a calculator and a computer, it's all on the computer and you can make some really nice graphs on it. I've been programming Grapher for three years so I want people to try it. It can graph regular Cartesian, parametric, polar, slope fields, vector

fields, and gradient fields and all equations are displayed in the TI-89 format of "pretty print." It's fairly customizable, it's written in Java [and] it's free. You can consider it just a math utility it doesn't do everything but I like to make it good at what it does. (Grapher can be found at [www.minesapps.com](http://www.minesapps.com))

**What area of science do you find to be the most interesting?**

In general I'd have to say nanotechnology, that you can actually create something out of individual atoms!

**What are your educational plans?**

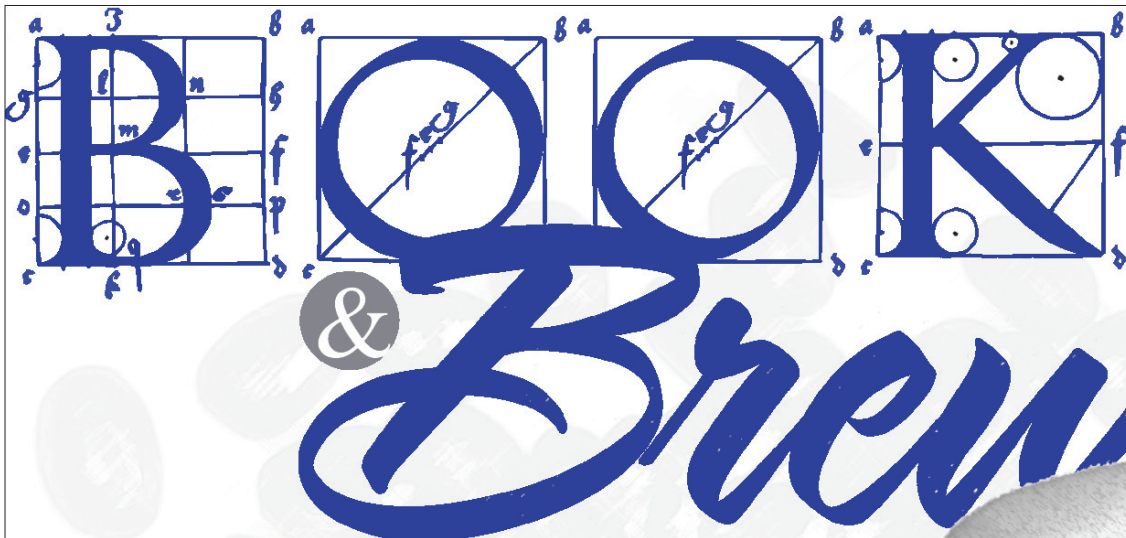
I intend to get a higher degree in one of my two majors: chemistry or computer science.

**What is the greatest extreme you've gone to for school work?**

I'd have to say in organic chemistry when I did all the problems in the book.

**Do you know a geek of the week?**

E-mail [oredig@mines.edu](mailto:oredig@mines.edu) and let us know!



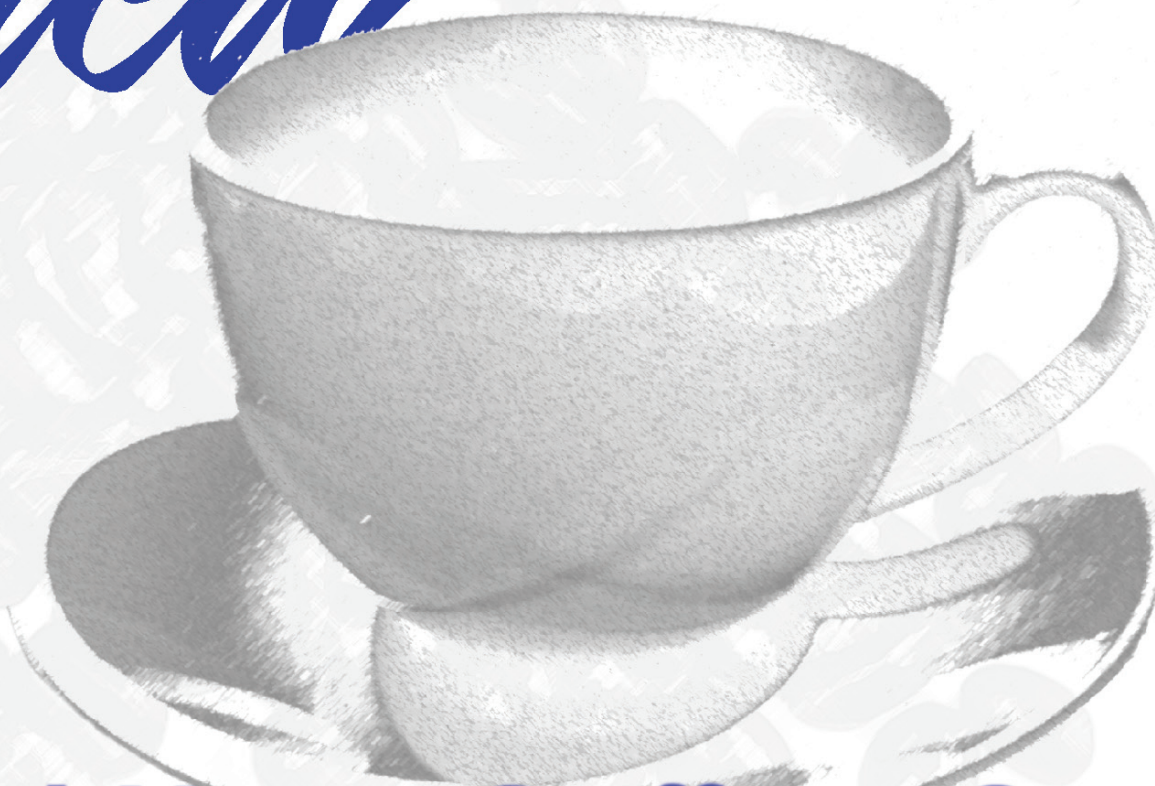
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# Movie Review

## Counting cards in 21

**Jesse Al-ayi**  
Staff Writer

Based loosely on the on the best-selling novel, "Bringing Down the House," by Ben Mezrich, *21* tells the inspiring true story of a group of MIT students who made bank in Vegas counting cards.

"If some MIT students can play the system, I sure as hell know there are better Mines kids that can do it better."

The movie's main character, Ben Campbell, played by Jim Sturgess, is wicked smart, which has gotten him through MIT and into Harvard medical school. Although he may have the grades, Ben hasn't

had any unique, real life experiences, so Harvard won't grant him a \$300,000 scholarship. Instead, he tries to save up for grad school by working an \$8 an hour job at a clothing department store.

Ben's potential is noticed by his math professor Micky Rosa, played by Kevin Spacey, who asks him to join his blackjack club made up of four other students. Ben initially refuses, but changes his mind when one of the members, Jill, who happens to be the girl of his dreams, entices him.

Before you know it, the "club" is heading down to Vegas ev-



ery weekend to rack up some dirty, hard cash. That is until Cole Williams, played by Laurence Fishburne, catches on to their little scheme. Cole is a security consultant for the casino, whose business has nearly become extinct due to the technological advances of facial recognition software.

There are, of course, some love side-plots and coming-of-age moments, but overall, the movie was rather entertaining. Most importantly, the movie will have you telling yourself, "If some MIT students can play the system, I sure as hell know there are Mines kids that can do it better."



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# Music Review

## Someone Still Loves You Boris Yeltsin

### Pershing makes waves

**Jake Rezac**  
Staff Writer

Missouri band Someone Still Loves You Boris Yeltsin (SSLYBY) released their second album, *Pershing*, on April 8th. The group, which is composed of Philip Dickey, Will Knauer, John Robert Cardwell, and Jonathan James, has been around since 2002, and released their first album *Broom* in 2005. *Pershing* is SSLYBY's first professionally produced record (*Broom* was recorded in a band-member's basement with low-quality equipment) and has received a large amount of buzz on music blogs and other websites.

*Pershing* begins with "Glue Girls." The song, which is very similar to the material they've released in the past, is upbeat and makes use of fast chord changes and doubled vocals for some great effects. The song also has a few catchy melodies, both sung and played by electric guitar.

Other highlights of the album include "Dead Right" and "Think I Wanna Die." In both songs, backing vocals create memorable harmo-

nies, which are offset by clean and crisp guitar playing and interesting rhythms, making both tracks very appealing.

Lyricaly, SSLYBY appears to be trying too hard to match their upbeat, catchy melodies with equally catchy and cute lyrics. In "Oceanographer," for example, almost every line has an end rhyme with the word 'oceanographer.' At times, however, the lyrics match the songs perfectly. "Boring Fountain" is a song about ennui and malaise, and the tired state these conditions cause. The words "by the way I feel nothing" permeate the song, perfectly balancing the melody.

*Pershing* finds SSLYBS more musically mature than *Broom*. They sound less like The Shins and The New Pornographers and more like a band creating its own sound. While this can act to their disadvantage at times, overall they've created a solid record whose upbeat and catchy tunes are sure to brighten a listener's day.



# Those Hipsters!

## CSM's newest band turns heads

**Jake Rezac**  
Staff Writer

Those Hipsters! is a band doing its best to get noticed by the Mines community. Whether they're playing at Anonymous Right Brains, winning the E-days Battle of the Bands competition, performing on Mines In-

ternet Radio, or simply practicing in the Student Center or elsewhere around campus, it can be hard for students involved in the campus community to miss them. Despite this, the band – composed of freshmen Keith Stevens and Tim Weilert – does its best not to take itself too seriously. The name, for example, is a bit of a joke to Stevens and Weilert, who will both admit to occasionally being hipsters themselves.

The duo got together late last semester with an interest in playing at Anonymous Right Brains (ARB). This is where their name first developed. "At Anonymous Right Brains, we had to put something down for our band name," Weilert said. Stevens added, "We realized that we were pretty much playing an entire hipster song set, so we thought 'how about mock hipsters and call ourselves 'Those

Hipsters!'" It was pretty much a one-time deal, but it stuck."

After a few successful performances at ARB, the two decided to continue working together at different venues. For example, this spring, they played at the Campus Crusade and FCA sponsored Soiree. This was the first performance where they played one of their most popular songs, "The REAL Hey There Delilah," deviating from their standard of indie-rock covers. The song is a parody of the Plain White T's song "Hey There Delilah," with

the lyrics changed to represent a love song by a Facebook stalker. The group has continued to perform, including a win at the E-days Battle of the Bands. "We were pretty surprised," said Weilert. The group gets much of its in-

spiration from their favorite bands. According to Weilert, these are "Sufjan Stevens, Death Cab for Cutie, The Shins, and Against Me!" Those Hipsters! have covered many of these bands. Sufjan Stevens is one of their favorites to cover because both Weilert and Stevens enjoy listening to Sufjan. "When- ever we do a cover

song, it's usually the song I've been listening to the most at the time," Weilert explained.

The duo is excited for the future. "We plan to write more original stuff, and help create our own distinct sound but practicing more and playing more gigs," said Stevens. Also, they will be living together next year and hopefully getting a drummer. According to Weilert, this will result in the two "getting more serious about the band."

However, while becoming better musicians, the group hopes to remain relaxed about their band. They hope to maintain a "hey, I like this song...let's play it!" attitude, said Stevens.

For more information on Those Hipsters! and free mp3s of their music, check out their MySpace page ([www.myspace.com/thosehipsters](http://www.myspace.com/thosehipsters)).





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# Mines Lacrosse team finds success as season continues

**Matthew Pusard**  
Content Manager

The Mines Men's Lacrosse team is over halfway through the season and the team has shown itself as a defensive power in the league. Through their first eight games, the Orediggers have let up a division-low 56 goals. This total includes a 17-1 masterpiece against Nebraska-Omaha and consecutive victories against Western State and Wyoming by the scores of 11-3 and 16-2 respectively. "Defensive Captain Trent Noonan knows how to motivate the defense and direct them to make a solid wall between the offense and the goal," said team captain Mike Stone. "With a great goalie too, the team has a great shot at doing anything as long as the offense keeps up. It's teamwork."

The season has not been without adversity. The team holds a current 2-1 divisional record with a 5-3 record overall. The team's first setback of the season occurred at the end of Spring Break on March 15th against Northern Arizona in a 10-2 defeat.

When asked about what happened, Stone commented that the two contributing factors were "a long car trip past midnight the night before and a lack of fire. There was no fire in most player's guts. We ended up being on defense

most of the time." The team had to travel from an 11-7 victory at the University of New Mexico to Northern Arizona in the period of a day.

The skid continued two weeks later against Fort Lewis in a 16-2 loss. The Orediggers were unable to get anything going on offense during the April 29th

"There was no fire in most player's guts. We ended up being on defense most of the time."

game and the team succumbed to the #7 Skyhawks, led by Erik Johnson and his 7 point game.

Despite the losses, the Orediggers had held a perfect conference record until recently. That wasn't enough for the Top 25 Polls though. CSM ranked 24th in the most recent April 2nd poll, but was ranked behind schools like Metro State who had lost 14-4 to CSM earlier in the year and had a worse conference and overall record than the Orediggers. The team is not worried about the polls, however. "The polls don't matter to us much now," stated Stone. "We have a list of goals for this season and smack dab at number one is making playoffs. It has nothing to do with polls anymore."

The Orediggers appear to be in control of their own destiny in

that respect. Despite a loss to the division-leading Montana State Bobcats on Saturday, the Orediggers just need to win their remaining divisional games against the University of Northern Colorado and Regis University to clinch a playoff spot. Both squads currently have losing records and reside behind the Orediggers in the standings.

UNC appears to be the more difficult of the two matchups. The Bears have totaled 107 goals on the season, but have also let up 94 in nine games. The team is tough though.

They came the closest out of any team in the conference to beating Montana State. The Bears took the Bobcats into overtime in their matchup, but lost 15-14. The Bears come to Mines on Saturday the 19th with their own playoff hopes on the line in what promises to be a great game. The teams will be playing at 2:00 PM.

On the women's side of the sport, the inaugural season for the Lady Orediggers is underway. The team's first game resulted in a 8-6 loss, but had two more games scheduled for this past Sunday afternoon. "It's a start-up team where next year will be great," said Stone, the team's coach, of the women's squad. "They have great leadership and will continue to improve through next year."

## Frozen Four comes to Denver

**Matthew Pusard**  
Content Manager

While 2007 saw the debut of the World Series in Colorado, this year will see the first ever Mile High Music Festival in July and an assuredly historical Democratic National Convention in August. Likewise, 2008 marked the return of the Frozen Four, the semifinals and finals of NCAA Division 1 hockey, to Colorado.

The tournament, which starts as a 16 team playoff divided into four subgroups, actually originated in Colorado Springs at the former Broadmoor World Arena. The arena held the first 10 Frozen Fours from 1948 to 1957 before the tournament branched out. While the tournament has appeared in Colorado since then, this year marked its debut at the Pepsi Center.

This year's Frozen Four featured two number one seeds, Michigan and North Dakota, facing off against fourth seed Notre Dame and third seed Boston College respectively. On Thursday, the Irish pulled out a 5-4 victory in overtime against Michigan to

secure their first championship game appearance in hockey as well as the first appearance of a fourth seed, the lowest seed in the tournament's four subgroups, in the final game. Meanwhile, Boston College had a significantly easier time making it to the championship, winning 6-1 after taking a four goal lead in the first period.

The win set up a new twist in the "Holy War" rivalry between the Eagles and the Fighting Irish. The two Catholic colleges are

Notre Dame looked sheepish in comparison and was not able to create any real scoring opportunities.

the only such universities that compete in Division 1-A football, the sport which originated the rivalry, and the rivalry continued on a different front on Saturday.

Boston College's play was reminiscent of their 6-1 semifinal victory as they started the game confident and aggressive. Notre Dame looked sheepish in comparison and was not able to create any real scoring opportunities in the

first period. But Boston College was not able to capitalize either as the game remained scoreless going into the first intermission.

BC finally got on the board early in the second period though. Showcasing the same dominant aggression, the team scored 3 consecutive goals in the first 8:11 of the period. Notre Dame quickly responded after the barrage with a goal of its own, but never really recovered. The team almost made things interesting in the third period

with a goal produced by crafty passing, but it was soon disallowed on a controversial call. The referees ruled that the puck was kicked into the net by Kyle Lawson, but any attempt to get a stick on the puck was nullified by a hit laid down by defenseman Tim Filangieri. The Irish never really threatened again and Boston College won 4-1 to secure its third national championship.

The tournament's most outstanding player award was won by 5'5" Junior Nathan Gerbe with his five Frozen Four goals, including the game winner in the championship game. His draft rights are already owned by the NHL's Buffalo Sabres.

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# Debunking the Nader nastiness

## Why the liberals are ruining America

Emily Przekwas  
Guest Writer

I would like to urge the Campus Democrats to stop propagandizing on the obscene myth that the 2000 election was "spoiled" by Ralph Nader. The flyers they handed out on E-Days insinuated the potential danger that Ralph Nader poses to the 2008 election and were fear-mongering at best. Third party candidates bolster and create a healthy democracy by adding to the political discourse and providing a voice for those of us who are dissatisfied with the options presented to us by our present two-party system.

The fliers passed out on E-days by the campus democrats had information about vote splitting and spoiling elections from Wikipedia. Specifically, the fliers outlined the results of the 2000 election, which some Gore supporters believe was "spoiled" by Ralph Nader. Most controversial was the Florida vote, where Nader received 97,000 votes and the margin of victory for Bush was 543 votes. However, the many voting irregularities in the 2000 Florida vote suggest that fraud, not Nader, was the true deciding factor. Moreover, according to a study in the New

Political Science Journal, those who voted for Nader would not necessarily have given their votes to Gore had Nader stepped out.

Here are some facts about the 2000 election that the Democrats did not include in their recent handouts:

- \* More than 200,000 registered Democrats in Florida voted for George Bush and over half of the registered Democrats there did not vote at all. [1]
- \* Every one of the eight third-party presidential candidates in Florida received more than the 543 votes cited as the deciding factor in the election. [2]
- \* The Florida courts ruled along party lines to uphold the vote count certified by Secretary of State Kathleen Harris, despite a clear conflict of interest (she was a member of Bush's campaign!) [3]
- \* Over 94,000 Florida voters were removed from voter rolls because of felony convictions. Yet more than 95% of them were not convicted felons and should not have been disqualified. The majority of these voters were registered Democrats. [4]
- \* On some discarded ballots,

voters both filled in the bubble for their candidate and wrote the candidate's name in the write-in-space. If these had been included in the count, Gore would have had a net gain of 662 votes, enough to win the election. [5]

- \* In the highly Democratic county of Palm Beach, an abnormally large number of votes were cast for the conservative candidate Pat Buchanan. Buchanan himself estimated that as many as 95% of these 3,500 votes were Gore's because of the faulty "butterfly" ballot. [6]
- \* According to exit polls, over half of the Nader voters would have stayed home, 25% would have voted for Gore, and 15% would have voted for Bush. The rest would have voted for another third party candidate. [7]

There were many illegal and disgraceful factors involved in the 2000 Florida election, but the fact that 97,000 American citizens voted for a cause and candidate they believed in was not one of them. Even Al Gore recognizes the election was stolen from him by a corrupt system in Florida and the failure of the Electoral College to accurately represent the popular vote. [8]

I choose to support Ralph Nader because I believe in the issues that he stands for. He is truly a progressive candidate. I will not give my vote to the spineless Democratic Party that authorized the Iraq invasion, does not advocate universal single-payer health care, and that

tacitly supports the military-industrial complex. I am offended that the campus democrats assume my vote could or would be wasted on the Democratic Party of which I believe has little or no truly progressive principles left in its platform.

I would urge all those who consider themselves as progressive to peruse Ralph Nader's website, [www.votenader.org](http://www.votenader.org). Here you will find substantive articles written by citizens participating in the democratic process rather than regurgitated lies spread by mass media think tanks. You will find that discrediting Ralph Nader's candidacy based on banal and false claims of "spoiling" the 2000 election does no justice to the causes he has been advocating for over 40 years.

[1] *San Francisco Chronicle*. (2000, Nov. 9). "Election 2000." Utilizing, Voter News Service.

[2] Trandahl, J. - Clerk of the House of Representatives. (Correct to June 21, 2001). *Statistics of the Presidential and Congressional Election of November 7, 2000*.

[3] Rakove, J. N., editor. (2001). *The Unfinished Election of 2000: Leading Scholars Examine America's Strangest Election*. New York, NY: Basic Books, A Member of the Perseus Books Group.

[4] Kelly, G. *The Observer, Guardian Media Group*. (2002, Oct. 31). "Exile on mainstream." Retrieved April 28, 2003, from [www.gregpalast.com](http://www.gregpalast.com).

[5] Keating, D. and Mintz, J.



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The many voting irregularities in the 2000 Florida vote suggest that fraud, not Nader, was the true deciding factor.

*Washington Post*. (2001 Nov. 13). "Florida black ballots affected most in 2000." Retrieved April 28, 2003, from <http://www.washingtonpost.com>.

[6] Nichols, J. (2001). *Jews for Buchanan: Did you hear the one about the theft of the American Presidency?* New York, NY: The New Press.

[7] Simmons, S and Simmons J.R. *If it Weren't for Those ?!&\*@! Nader Voters we Wouldn't Be in This Mess: The Social Determinants of the Nader Vote and the Constraints on Political Choice*, New Political Science: June 1, 2006

[8] John Heilmann *The Come-back Kid* New York Magazine May 22, 2006 Accessed at: <http://nymag.com/news/politics/17065/>

## Letter to the Editor

Dear Editor,

I am writing this in response to the article "The D.C. Handgun Ban" written by Alec Westerman in the March 31<sup>st</sup> edition of the Oredigger. He makes several bad assumptions that I cannot let slide by. I agree with him that the primary goal of a ban is to remove handguns from the hands of people.

However, he claims that smuggling handguns would be difficult. I personally can think of 3 different places that it would be easy to store 3 or more handguns for smuggling purposes in an unmodified car, and with a few alterations, many, many more. Therefore, with smuggling not being impossible, all a ban would do is remove guns from the hands of the innocents, from the victims, and not from criminals. Furthermore, the National Center for Policy Analysis (NCPA) found that after the enforcement of the D.C. gun ban in 1972, crime rates rose 134% [1] as well as crime rate in several other locations rising after similar restrictions. Take a look at Kennesaw, GA, which in 1981 enacted a law requiring every household to own a weapon and ammunition for it; crime rates dropped more than 50% [2]. So, gun bans do not work, but the exact opposite of a gun ban does.

Finally, he claims that "it's not the public's job to defend themselves" and "self defense is unacceptable". These claims are completely outrageous. First off, official response times around the nation, according to a USA Today investigation [3], average about 6

minutes. The investigation also says that this is the time it takes just to physically drive from the station to the site of the crime/accident/emergency. This does not include routing the call, suiting up, or walking to the location. In real life, the criminal does not spend 6 minutes monologuing before they try to kill you, only to be foiled by cops, they just kill you. So, "calling 911 in the midst of a murder" gives the murderer at least 6 minutes to get away. This means that, if people want to be defended, they must take their own defense into their own hands.

I am not saying that the founding fathers saw all of this when they wrote the law, but they might have. If a criminal knows for a fact I have a gun in my house, they will not enter my house, but instead pick an easier target. That response is self-preservation and basic human instinct. There is a reason that nothing is scarier than the clean, metallic sound of a cocking shotgun in the middle of the night, because guns work without even needing to be fired. Gun bans cause the cliché saying "If you outlaw guns, only outlaws will have guns" to come true, and that is a very bad thing.

[1] <http://www.ncpa.org/pub/st/st176/s176c.html>

[2] [http://www.wnd.com/news/article.asp?ARTICLE\\_ID=55288](http://www.wnd.com/news/article.asp?ARTICLE_ID=55288)

[3] <http://www.usatoday.com/news/nation/ems-day2-cover.htm>

Sincerely,  
Josh Black

## THREAT OF THE WEAK

### A NEW VISION OF BLACK AND WHITE...

Andrew Aschenbrenner  
Columnist

The difference between threat and safety is one acutely known to man. A sense for threats to one's well-being and way of life is important to survival and, in some cases, happiness. But the black-and-white view of threat and safety is a primitive way of dealing with the world. It allows for no nuances, no adjustments, and ultimately no coexistence.

In today's world, the outdated practice of seeing the unknown as a threat and the known as safety is largely an unacknowledged instinct. Unfortunately, for the evolving world, man's tendency to seek-and-destroy perceived threats destroys efforts at diplomacy and cooperation.

Somewhat, the current state of the world has devolved into a type of internal warfare. This is the result of selfishness and greed, as well as misunderstanding and distrust. And so goes the predicament: How is man supposed to survive without destroying what is being fought over?

The thought that our divides will destroy us, unfortunately, transcends politics. It has been asserted that there are "two Americas." From the perspective of the Left,

there is rich and poor. From the perspective of the Right, there is moral and immoral. Let's be clear: There is one America. Period.

The simple thought that there needs to be a battle of "Us vs. Them" is preposterous. Many of our forefathers were smart enough to know this. Many of them were not. Battles have raged throughout history, from the Crusades to the World Wars to the political battle waged by the "Moral Majority."

They have all ended with the realization that survival is dependent on overlooking our differences to celebrate the whole. Inevitably, the differences turn out to be not so large after all.

Threats are the weak man's tool for control. There have been many "chief threats" named throughout history. Among them: the Jews, the lepers, the Christians, the Romans, the Huns, the pagans, the Protestants, the Muslims, the women, the Communists, the blacks, the Germans, the Japanese, the scientists, and the homosexuals. The list goes on and on.

When a perceived threat is trumpeted, it culminates in death. It's that

simple. Of course, it's usually not quite as dramatic as the Holocaust. But it is the same effect. Demonize the "other," and it will insure your own safety. Nothing is more shameful.

What is incredibly dangerous is that we have been seeing an incredible political climate over the past few decades. I'd describe it as the "age of the threat." Suddenly, we are greeted with the message to isolate. Never before has society been so fractured. Life is all about who you like, and who else is out to get you. Gone is the sentiment that what is good for the whole is good for every individual, otherwise known as the greater good.

Fortunately, the only real threat is buying in to all of the hype. The only real threat is allowing polarization, and allowing the restriction of freedom and knowledge.

Therefore, I will be starting a new column. With apologies to Stephen Colbert's "Threat Down," it will be called "Threat of the Weak." Surely there will be enough division to dissect for years to come. If not, a new age of mankind will have dawned. I'm not holding my breath.

#### Editorials Policy

The Oredigger is a designated public forum. Editors have the authority to make all content decisions without censorship or advance approval and may edit submitted pieces for length so long as the original meaning of the piece is unchanged. Opinions contained within the Opinion Section do not necessarily reflect those of Colorado School of Mines or The Oredigger. The Oredigger does not accept submissions without identification and will consider all requests for anonymity in publication on a case-by-case basis. Submissions less than 300 words will receive preference.



# Fool's Gold

"Beam me up Scotty!"



## Guggenheim bells replaced by Star Trek theme

### Student quality of life increases

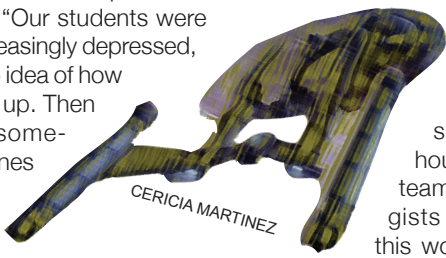
Tim Weilert  
Trekkie

In a controversial move that will surely go down in CSM history, the president's office has decided to alter one of the school's enduring traditions, the hourly bells in Gugenheim Hall. "We had a problem on hands," explained Mines president Bill Scoggins. "Our students were becoming increasingly depressed, and we had no idea of how to cheer them up. Then we realized something: most Mines students are avid Star Trek fans."

While only 15% of the student population and 30% of the faculty can speak Klingon, an astounding 100% of the total CSM campus claim to have goals ranging from "living long" to "prospering." For that reason, the bell tower, in the historic Gugenheim Hall, will be adjusted to play the theme song from *Star Trek: The Next Generation* instead of the usual hourly

tolling of the bells. Instead of using an AM/PM 12 hour setting, the bell tower will work on a military style 24 hour setting. "For each hour, the entire theme will play through," explained bell repair man Bob Belington, "At 12 AM, the song will play 24 times, and the students will rejoice with each passing hour."

An alternate idea was also proposed, playing the Star Wars theme song each hour. However, a team of psychologists decided that this would in fact increase student depression. "I love the original trilogy," explained CSM Junior Charles 'the wookiee' Williams, "But that song always reminds me of the shitty episodes I, II, & III." Golden residents have protested the decision, claiming that the theme song from Tony Danza's television series *Charles In Charge* would be a better alternative.



## National mouthwash shortage Mines campus unaffected by lack of Listerine

Cameron Frisby  
Toothpaste Connoisseur

A drastic increase in the price of Eucalyptol, a key ingredient in the production of all brands of mouthwash, has lead to the worst oral hygiene crisis in 135 years.

Eucalyptol comes primarily from the Eucalyptus tree of Australia. Since the United Nations lifted the ban on owning koalas as pets, the price of Eucalyptus has shot through the roof as celebrities and rich people everywhere rush to secure a stable food supply for their newest fuzzy, cute pet.

Listerine, Colgate, Scope. It is all gone, the horror.

Consequently, the sales of toothpaste and sugar-free gum have exploded.

Due to our campus' low level of personal hygiene, we have been unaffected by the latest national crisis. A failed attempt to take a poll regarding the student body's feelings on the matter of "the great mouthwash shortage of '08" was met by confusion (most did not even know what mouthwash was).

To counteract this startling new discovery, the Mines Registrar replaced Chemistry I and II with a new class: Health 101, "Engineering a better you."

The immediate results of this announcement horrify the administration still today. The pure joy of every freshman swept across the campus in a week-long wave of parties, booze, and Chem book bonfires.

Even though the Registrar initially sought to improve hygiene among the students, they should have walked around on day four of partying and en-

child or boyfriend and girlfriend. These days, calling someone a koala will almost certainly result in admission to a hospital for viscous, brawl-induced injuries.

In the face of bankruptcy and disgrace, the scientists at Listerine locked themselves in the laboratory for months on end until they stumbled upon the solution to their problem.

Comically, the head of research proudly raised and loved his private family of koalas. Early one Tuesday morning he accidentally woke the oldest koala, dubbed "Snuggle Bunny." Angry at being disturbed, Snuggle Bunny left a deep gash in the researcher's arm, courtesy of her powerful jaws.

At work that day, our favorite researcher sought relief from his recent battle wound and dipped his arm in the cooling mixture that is Eucalyptol-free Listerine.

Surprisingly, enough Koala saliva remained deep within the laceration to provide the necessary

Eucalyptol to return the Listerine formula back to its original minty glory.

This illuminating fact initiated the creation of Koala milking institutions, places where the furry little mammals can laze around all day for the small price of a pint or two of saliva.

Next time you enjoy the minty freshness of Listerine, just remember that you are swishing with Koala spit.



COURTESY WIKIMEDIA COMMONS

Furry and fun: Mmmm Koala saliva.

joyed the odor of dried vomit, sweat, and rancid moldy pizza.

Anyway, due to the raging mouthwash shortage the koala has gone from an adorable symbol of Australia to the blazing insignia of bad breath and gingivitis.

Once the saying "my cute little koala bear" represented affection between mother and

## Giant Ruffles attack! Loss of Coors factory causes student action

Cameron Frisby  
Scared and Hungry

Thursday, the third of April, 2008.

No longer will this day be remembered as E-Days' kick off, it shall forever be commemorated as the day Golden was beset by angry, monstrous potato chips.

After ravaging the town for several hours, the mutant munchies successfully penetrated the heavily guarded Coors Brewery. Little did they know that their doom awaited them inside our local brewery.

Anyone that drinks beer can tell you that elephantine burps await those that drink cheap beer too quickly. When you add food to the equation, earth-shaking belches await. From curry to chips, you do not want to be around when these enormous discharges of gas occur.

Back to our mutant Ruffles, the potato monstrosities had invaded the packaging room and had diverted the flow of cool brew directly into their large salty stomachs.

Soon after the beer consumption had begun, the Coors started to react with the giant monsters that had consumed it.

Two forty-two PM: An explosion reading 3.5 on the

Richter scale rocks Golden.

Mass ingestion of our local beer had simultaneously created the world's most epic burps in all twenty-seven of the Ruffles giants. The extreme release of gas ripped the Coors factory to shreds, and with it went the terrorizing potato chips.

Loss of the factory sparked mass grief rallies at bars, college campuses, and trailer parks across the nation. Additionally, due to a technicality in the insurance plan (attack by giant snack foods was not included), the Coors Brewing factory did not receive sufficient compensation to rebuild their massive industrial complex.

Faced with the possibility of no longer being able to go to Coors Lab during free time, the students of CSM officially renamed the university the Colorado School of Brewing and went to work on rebuilding the beloved brewery.

Fortunately this kind of activity fits perfectly into the school's belief of learning by doing, so the faculty just ran with it (methinks they missed the beer as well).

Nine months of intensive work and swarming engineering students saw the rebirth of Coors

from the ground up. New brewing, packaging, storage, and distribution facilities had been added, along with a twenty-thousand square foot sampling bar to replace the old Coors Lab.

When construction was finished, and the entire student body lounged about enjoying the lifetime of free beer they had earned, someone asked, "Where did those giant Ruffles come from anyway?"

Investigation began after this overly curious student had been sufficiently pummeled for ruining the perfect peace of a lazy afternoon.

Two minutes of research revealed that the chips must have come from Frito-Lay's main plant in Plano, Texas.

By drawing a straight line from the plant in Plano, Texas, to Golden one can see that the only thing that could have seen this attack coming was about four million cows.

Next step in the battle plan, make nice with our contacts at Lockheed Martin and arrange for a "training incident" to occur at the Frito-Lay headquarters.

Always remain proud that you go to a school that will forever receive daily shipments of cold, free beer!



### Ways to Make Extra Ca\$h at Mines

Matthew Pusard  
Financier

10. Sell a kidney.
9. Sell 2 kidneys.
8. Don't eat at the Slate café. The money saved by eating there will be wasted on having your stomach pumped afterwards.
7. Buy up Bear Sterns stock. It's extra cheap these days.
6. Sell your homework on Craig's List
5. Give the school an IOU instead of paying tuition
4. Become a joke trick and sell your stuff to the school newspaper. It pays well. Trust me.
3. Become a harlot and sell yourself on the streets. It pays well. Trust me.
2. Get into one of those college house-painting pyramid schemes where 10% of people break even. The odds are on your side.
1. Two words: Call Dad.





**Madden 08 Champ**  
**Zach Grunder**



CLUB AND INTRAMURAL SPORTS



**POST E-DAYS DECREE**  
**ALL CLUB AND IM CHAMPIONS**  
**MUST BE RECOGNIZED!**



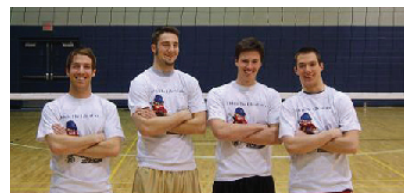
**Wrestling 180 Champ**  
**Russell Rogers**



**Wrestling Heavy Weight Champ**  
**Trent Noonan**



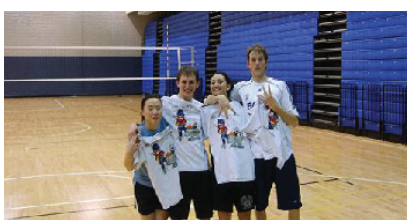
**Men's Badminton Doubles Champs**  
**Cheong & Ngan**



**4 vs 4 Men's Volleyball Champs**  
**Los Santos Guapos**



**Women's Badminton Doubles Champs**  
**Ramli & MohdZaki**



**4 VS 4 Co-Rec Volleyball Champs**  
**Balls**



**Wrestling Team Champs**  
**Hicktown Horses**



**Women's Foosball Champs**  
**Burchardt & Neil**



**Co-Rec Basketball Champs**  
**Chuy's Chulo's**



**MEN'S BASKETBALL CHAMPS**  
**SHOOTER MACGAVIN'S**



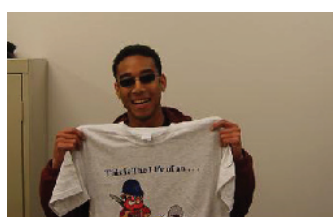
**Wrestling 193 Champ**  
**Jordan Ingram**



**Women's Basketball Champs**  
**Alpha Phi**



**Wrestling 153 Champ**  
**Brandon Sullivan**



**Men's Billard's Champ**  
**Mohamad Nor**



**Co-Rec Floor Hockey Champs**  
**Backside Attack**



**NCAA PICK EM**  
**KEVIN FRANZEN**



**Men's Floor Hockey Champs**  
**Short One & Drew**



**Men's Foosball Champs**  
**Decker & Hutchinson**



**Wrestling 215 Champ**  
**Brian Evans**



**Kickball Champs**  
**Hero Squad - Disco Edition**



**Wrestling 145 Champ**  
**Deider Barrick**



**Guitar Hero Champ**  
**Michael Dunlap**



**Wrestling 170 Champ**  
**Jesse Havens**



**Table Tennis Doubles Champs**  
**Cheong & Huang**



**Wrestling 161 Champ**  
**Devin Roswold**

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